APPLICATION NO.: 10/789,536 ATTY. DOCKET NO.: C1039.70083US05

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Sheer of 19 of 7

APPLICATION NO.: 10/789,536 ATTY. DOCKET NO.: C1039.70083US05

FILING DATE: February 26, 2004 CONFIRMATION NO.: 9640

APPLICANT: Krieg et al.

GROUP ART UNIT: 1645 EXAMINER: Nita M. Minnifield

U.S. PATENT DOCUMENTS

Examine By TR	Cite V.S. Patent Doc		Name of Patentee or Applicant of Cited	Date of Publication or Issue of Cited Document
Initials #	Number	Kind Code	Document	MM-DD-YYYY
NMM	3,906,092		Hilleman et al.	09-16-1975
	5,780,448		Davis	07-14-1998
	6,090,791		Sato et al.	07-18-2000
	6,221,882		Macfarlane	04-24-2001
	6,339,630		Macfarlane	06-04-2002
	6,426,336	Bl	Carson et al.	07-30-2002
	6,479,504		Macfarlane et al.	11-12-2002
	6,521,637		Macfarlane	02-18-2003
	6,544,518	B1	Friede et al.	04-08-2003
	6,558,670	Bl	Friede et al.	05-06-2003
	6,737,066	B1	Moss	05-18-2004
	6,943,240		Bauer et al.	09-13-2005
	7,001,890		Wagner et al.	02-26-2006
	2002-0086295	Al	Raz et al.	07-04-2002
	2002-0091097	A1	Bratzler et al.	07-11-2002
	2003-0026801	A1	Weiner et al.	02-06-2003
	2003-0050261	Al	Krieg et al.	03-13-2003
	2003-0050268	Al	Krieg et al.	03-13-2003
	2003-0091599	A1	Davis et al.	05-15-2003
	2003-0100527	A1	Krieg et al.	05-29-2003
	2003-0104044	A1	Semple et al.	06-05-2003
	2003-0109469	Al	Carson et al.	06-12-2003
	2003-0125292	A1	Semple et al.	07-03-2003
	2003-0139364	A1	Krieg et al.	07-24-2003
	2003-0148316	A1	Lipford et al.	08-07-2003
	2003-0148976	A1	Krieg et al.	08-07-2003
	2003-0181406	A1	Schetter et al.	09-25-2003
	2003-0203861	A1	Carson et al.	10-30-2003
	2003-0212026	A1	Krieg et al.	11-13-2003
	2003-0232074	A1	Lipford et al.	12-18-2003
V	2003-0232780	A1	Carson et al.	12-18-2003
NMM	2003-0232856	A1	Macfarlane	12-18-2003

EXAMINER:	/N. M.	Minnifield/	(11/28/2006)	DATE CONSIDERED:		
					11/28/2006	

[#] EXAMINER: Initial if reference considered, whether or noticitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

APPLICATION NO.: 10/789,536 ATTY. DOCKET NO.: C1039.70083US05

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Sheet 2 of 7

APPLICATION NO.: 10/789,536 ATTY. DOCKET NO.: C1039.70083US05

FILING DATE: February 26, 2004 CONFIRMATION NO.: 9640

APPLICANT: Krieg et al.

GROUP ART UNIT: 1645 EXAMINER: Nita M. Minnifield

NMM	2004-0006010	A1	Carson et al.	01-08-2004
ī	2004-0009949	A1	Krieg	01-15-2004
	2004-0030118	A1	Wagner et al.	02-12-2004
	2004-0053880	A1	Krieg	03-18-2004
	2004-0067902	A9	Bratzler et al.	04-08-2004
	2004-0067905	A1	Krieg	04-08-2004
	2004-0087534	A1	Krieg et al.	05-06-2004
	2004-0087538	A1	Krieg et al.	05-06-2004
	2004-0092472	A1	Krieg	05-13-2004
	2004-0106568	A1	Krieg et al.	06-03-2004
	2004-0131628	A1	Bratzler et al.	07-08-2004
	2004-0132685	Al	Krieg et al.	07-08-2004
	2004-0142469	A1	Krieg et al.	07-22-2004
	2004-0143112	A1	Krieg et al.	07-22-2004
	2004-0147468	A1	Krieg et al.	07-29-2004
	2004-0152649	Al	Krieg	08-05-2004
	2004-0152656	Al	Krieg et al.	08-05-2004
	2004-0152657	A1	Krieg et al.	08-05-2004
	2004-0162258	Al	Krieg et al.	08-19-2004
	2004-0162262	Al	Krieg et al.	08-19-2004
	2004-0167089	Al	Krieg et al.	08-26-2004
	2004-0171150	Al	Krieg et al.	09-02-2004
	2004-0171571	Al	Krieg et al.	09-02-2004
	2004-0181045	Al	Krieg et al.	09-16-2004
	2004-0198680	Al	Krieg	10-07-2004
	2004-0198688	Al	Krieg et al.	10-07-2004
	2004-0229835	Al	Krieg et al.	11-18-2004
	2004-0234512	Al	Wagner et al.	11-25-2004
	2004-0235770	Al	Davis et al.	11-25-2004
	2004-0235774	Al	Bratzler et al.	11-25-2004
	2004-0235777	A1	Wagner et al.	11-25-2004
1	2004-0235778	Al	Wagner et al.	11-25-2004
	2004-0266719	Al	McCluskie et al.	12-30-2004
	2005-0004061	Al	Krieg et al.	01-06-2005
\mathbf{V}	2005-0004062	A1	Krieg et al.	01-06-2005
NMM	2005-0009774	A1	Krieg et al.	01-13-2005

EXAMINER:		DATE CONSIDERED:
	/N. M. Minnifield/ (11/28/2006)	11/28/2006
	·	•

^{*} EXAMINER: Initial if reference considered, whether or notcitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449/A and B (modified PTO/SB/08)

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Sheet 3 of 7

APPLICATION NO.: 10/789,536 ATTY. DOCKET NO.: C1039.70083US05

FILING DATE: February 26, 2004 CONFIRMATION NO.: 9640

APPLICANT: Krieg et al.

GROUP ART UNIT: 1645

EXAMINER: Nita M. Minnifield

NMM	2005-0031638	Al	Dalemans et al.	02-10-2005
	2005-0032734	Al	Davis et al.	02-10-2005
	2005-0032736	A1	Krieg et al.	02-10-2005
	2005-0037403	Al	Krieg et al.	02-17-2005
	2005-0037985	Al	Krieg et al.	02-17-2005
	2005-0043529	A1	Davis et al.	02-24-2005
	2005-0049215	A1	Krieg et al.	03-03-2005
	2005-0049216	A1	Krieg et al.	03-03-2005
	2005-0054601	A1	Wagner et al.	03-10-2005
	2005-0054602	Al	Krieg et al.	03-10-2005
	2005-0059619	Al	Krieg et al.	03-17-2005
	2005-0059625	A1	Krieg et al.	03-17-2005
	2005-0070491	A1	Krieg et al.	03-31-2005
1	2005-0075302	Al	Hutcherson et al.	04-07-2005
	2005-0100983	A1	Bauer et al.	05-12-2005
	2005-0101554	A1	Krieg et al.	05-12-2005
	2005-0101557	Al	Krieg et al.	05-12-2005
	2005-0119273	A1	Lipford et al.	06-02-2005
	2005-0123523	Al	Krieg et al.	06-09-2005
1	2005-0130911	A1	Uhlmann et al.	06-16-2005
	2005-0148537	Al	Krieg et al.	07-07-2005
	2005-0158336	Al	Diamond et al.	07-21-2005
	2005-0169888	Al	Hartman et al.	08-04-2005
	2005-0171047	Al	Krieg et al.	08-04-2005
	2005-0181422	A1	Bauer et al.	08-18-2005
	2005-0182017	A1	Krieg	08-18-2005
	2005-0196411	A1	Moss et al.	09-08-2005
	2005-0197314	A1	Krieg et al.	09-08-2005
	2005-0215500	A1	Krieg et al.	09-29-2005
	2005-0215501	Al	Lipford et al.	09-29-2005
1	2005-0233995	Al	Krieg et al.	10-20-2005
	2005-0233999	A1	Krieg et al.	10-20-2005
	2005-0239732	A1	Krieg et al.	10-27-2005
	2005-0239733	A1	Jurk et al.	10-27-2005
	2005-0239734	A1	Uhlmann et al.	10-27-2005
NMM .	2005-0239736	Al	Krieg et al.	10-27-2005

EXAMINER:				DATE CONSIDERED:		
	/N. M.	Minnifield/	(11/28/2006)		11/28/2006	
1						

[#] EXAMINER: Initial if reference considered, whether or notitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449/A and B (modified PTO/SB/08)

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Sheet 4 of 7

APPLICATION NO.: 10/789,536 ATTY. DOCKET NO.: C1039.70083US05

FILING DATE: February 26, 2004 CONFIRMATION NO.: 9640

APPLICANT: Krieg et al.

GROUP ART UNIT: 1645 EXAMINER: Nita M. Minnifield

NMM	2005-0245477	Al	Krieg et al.	11-03-2005
	2005-0244379	A1	Krieg et al.	11-03-2005
	2005-0244380	A1	Krieg et al.	11-03-2005
	2005-0250726	A1	Krieg et al.	11-10-2005
1 1	2005-0256073	Al	Lipford et al.	11-17-2005
	2005-0267057	A1	Krieg	12-01-2005
	2005-0267064	A1	Krieg et al.	12-01-2005
	2005-0277604	A1	Krieg et al.	12-15-2005
	2006-0003955	A1	Krieg et al.	01-05-2006
	2006-0003962	A1	Ahluwalia et al.	01-05-2006
	2006-0019916	Al	Krieg et al.	01-26-2006
	2006-0019923	Al	Davis et al.	01-26-2006
	2006-0089326	A1	Krieg et al.	04-27-2006
	2006-0094683	A1	Krieg et al.	05-04-2006
	2006-0140875	A1	Krieg et al.	06-29-2006
	2006-0154890	Al	Bratzler et al.	07-13-2006
	2006-0172966	Al	Lipford et al.	08-03-2006
	2006-0188913	Al	Krieg et al.	08-24-2006
	2006-0211639	A1	Bratzler et al.	09-21-2006
\mathbf{V}^{-1}	2006-0211644	A1	Krieg et al.	09-21-2006
NMM	2006-0229271	Al	Krieg et al.	10-12-2006

FOREIGN PATENT DOCUMENTS

Examiner's	Cite	Tite Office/ Country Number Kind Code		ent	Name of Patentee or Applicant of Cited	Date of Publication of	Translation
Initials #	No.				Document Document	Cited Document MM-DD-YYYY	(Y/N)
NMM		wo	93/15207	A2	Viagene Inc.	08-05-1993	
<u> </u>		wo	97/12633>	Al	Immunex Corporation	04-10-1997	
		wo	97/28259	Al	The Regents of the University of California	08-07-1997	
		wo	99/56755	A1	University of Iowa Research Foundation	11-11-1999	
		wo	00/06588	A1	University of Iowa Research Foundation	02-10-2000	
		wo	2004/007743	A2	Coley Pharmaceutical GmbH	01-22-2004	
\/		wo	2004/026888	A2	Coley Pharmaceutical GmbH	04-01-2004	
NMM		wo	2004/094671	A2	Coley Pharmaceutical GmbH	11-04-2004	

EXAMINER:	DATE CONSIDERED:
/N. M. Minnifield/ (11/28/2006)	11/28/2006

EXAMINER: Initial if reference considered, whether or noticitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

EODM PTO 1440/A and B (modified PTO/SB/09)				APPLICATION NO.	.: 10/789,536	ATTY. DOCKET NO.: C1039.70083US05
FORM PTO-1449/A and B (modified PTO/SB/08) INFORMATION DISCLOSURE STATEMENT BY APPLICANT			FILING DATE: Feb	bruary 26, 2004	CONFIRMATION NO.: 9640	
			APPLICANT:	Krieg et al.		
Sheet	5	of	7	GROUP ART UNIT	: 1645	EXAMINER: Nita M. Minnifield

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
MMM	•	BALLAS et al., Induction of NK activity in murine and human cells by CpG motifs in oligodeoxynucleotides and bacterial DNA. J Immunol. 1996 Sep 1;157(5):1840-5.		
	-	BRANDA et al., Amplification of antibody production by phosphorothioate oligodeoxynucleotides. J Lab Clin Med. 1996 Sep;128(3):329-38.		
		CARSON et al., Oligonucleotide adjuvants for T helper 1 (Th1)-specific vaccination. J Exp Med. 1997 Nov 17;186(10):1621-2.		
		CHACE et al., Bacterial DNA-induced NK cell IFN-gamma production is dependent on macrophage secretion of IL-12. Clin Immunol Immunopathol. 1997 Aug;84(2):185-93.		
		COWDERY et al., Bacterial DNA induces NK cells to produce IFN-gamma in vivo and increases the toxicity of lipopolysaccharides. J Immunol. 1996 Jun 15;156(12):4570-5.	·	
		DAVIS et al., Plasmid DNA expression systems for the purpose of immunization. Curr Opin Biotechnol. 1997 Oct;8(5):635-46.		
		GALLICHAN et al., Specific secretory immune responses in the female genital tract following intranasal immunization with a recombinant adenovirus expressing glycoprotein B of herpes simplex virus. Vaccine. 1995 Nov;13(16):1589-95.		
		GASTON et al., CpG methylation has differential effects on the binding of YY1 and ETS proteins to the bi-directional promoter of the Surf-1 and Surf-2 genes. Nucleic Acids Res. 1995 Mar 25;23(6):901-9.		
		HALPERN et al., Bacterial DNA induces murine interferon-gamma production by stimulation of interleukin-12 and tumor necrosis factor-alpha. Cell Immunol. 1996 Jan 10;167(1):72-8.		
		HIGGINS et al., Direct linkage of immunostimulatory DNA to a variety of proteins dramatically enhances Th1 and CTL responses. On Vaccine Research. National Foundation for Infectious Diseases (NFID) 5th Annual Conference. May 6-8th, 2002. Abstract S4.		
		KATAOKA et al., Immunotherapeutic potential in guinea-pig tumor model of deoxyribonucleic acid from Mycobacterium bovis BCG complexed with poly-L-lysine and carboxymethylcellulose. Jpn J Med Sci Biol. 1990 Oct;43(5):171-82.		
		KLINMAN et al., CpG motifs present in bacteria DNA rapidly induce lymphocytes to secrete interleukin 6, interleukin 12, and interferon gamma. Proc Natl Acad Sci U S A. 1996 Apr 2;93(7):2879-83.		
		KRIEG et al., Lymphocyte activation mediated by oligodeoxynucleotides or DNA containing novel un-methylated CpG motifs. American College of Rheumatology 58 th National Scientific Meeting. Minneapolis, Minnesota, October 22, 1994. Abstracts. Arthritis Rheum. 1994 Sep;37(9 Suppl).		
\/		KRIEG et al., Phosphorothioate oligodeoxynucleotides: antisense or anti-protein? Antisense Res Dev. 1995 Winter;5(4):241.		
NMM		KRIEG, CpG DNA: a pathogenic factor in systemic lupus erythematosus? J Clin Immunol. 1995 Nov;15(6):284-92.		

į	EXAMINER:			DATE CONSIDERED:	
		/N. M.	Minnifield/ (11/28/2006)		11/28/2006

EXAMINER: Initial if reference considered, whether or notitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449/A and B (modified PTO/SB/08)

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Sheet 6 of 7

APPLICATION NO.: 10/789,536 ATTY. DOCKET NO.: C1039.70083US05

FILING DATE: February 26, 2004 CONFIRMATION NO.: 9640

APPLICANT: Krieg et al.

GROUP ART UNIT: 1645 EXAMINER: Nita M. Minnifield

NMM	KRIEG et al., Modification of antisense phosphodiester oligodeoxynucleotides by a 5' cholesteryl moiety increases cellular association and improves efficacy. Proc Natl Acad Sci U S A. 1993 Feb 1;90(3):1048-52.	
	KRIEG, An innate immune defense mechanism based on the recognition of CpG motifs in microbial DNA. J Lab Clin Med. 1996 Aug;128(2):128-33.	
	KRIEG et al., 1996 Meeting on Molecular Approaches to the Control of Infectious Diseases. Cold Spring Harbor Laboratory, September 9-13, 1996: 116.	
	KRIEG et al., Infection. In McGraw Hill Book. 1996: 242-3.	
	KRIEG et al., Lymphocyte activation by CpG dinucleotide motifs in prokaryotic DNA. Trends Microbiol. 1996 Feb;4(2):73-6.	
	KURAMOTO et al., Induction of T-cell-mediated immunity against MethA fibrosarcoma by intratumoral injections of a bacillus Calmette-Guerin nucleic acid fraction. Cancer Immunol Immunother. 1992;34(5):283-8.	
	KURAMOTO et al., Changes of host cell infiltration into Meth A fibrosarcoma tumor during the course of regression induced by injections of a BCG nucleic acid fraction. Int J Immunopharmacol. 1992 Jul;14(5):773-82.	·
	KURAMOTO et al., In situ infiltration of natural killer-like cells induced by intradermal injection of the nucleic acid fraction from BCG. Microbiol Immunol. 1989;33(11):929-40.	
	PISETSKY et al., The immunologic properties of DNA. J Immunol. 1996 Jan 15;156(2):421-3.	
	PISETSKY et al., Immunological properties of bacterial DNA. Ann N Y Acad Sci. 1995 Nov 27;772:152-63.	
	PISETSKY, Immunologic consequences of nucleic acid therapy. Antisense Res Dev. 1995 Fall;5(3):219-25.	
	PISETSKY et al., Stimulation of in vitro proliferation of murine lymphocytes by synthetic oligodeoxynucleotides. Mol Biol Rep. 1993 Oct;18(3):217-21.	
	PISETSKY et al., Immune activation by bacterial DNA: a new genetic code. Immunity. 1996 Oct;5(4):303-10.	
	RYNKIEWICZ et al., Marked enhancement of antibody response to anthrax vaccine adsorbed with CPG 7909 in healthy volunteers. Intersci. Conf. Antimicrob. Agents Chemother. Poster (2005).	
	SIDMAN et al., Gamma-interferon is one of several direct B cell-maturing lymphokines. Nature. 1984 Jun 28-Jul 4;309(5971):801-4.	
	SONEHARA et al., Hexamer palindromic oligonucleotides with 5'-CG-3' motif(s) induce production of interferon. J Interferon Cytokine Res. 1996 Oct;16(10):799-803.	
	STEIN et al., Problems in interpretation of data derived from in vitro and in vivo use of antisense oligodeoxynucleotides. Antisense Res Dev. 1994 Summer;4(2):67-9.	
	WYATT et al. Combinatorially selected guanosine-quartet structure is a potent inhibitor of human immunodeficiency virus envelope-mediated cell fusion. Proc Natl Acad Sci U S A. 1994 Feb 15;91(4):1356-60.	
NMM	YI et al., Rapid immune activation by CpG motifs in bacterial DNA. Systemic induction of IL-6 transcription through an antioxidant-sensitive pathway. J Immunol. 1996 Dec 15;157(12):5394-402.	

EXAMINER:	DATE CONSIDERED:
/N. M. Minnifield/ (11/28/2006)	11/28/2006

^{*}EXAMINER: Initial if reference considered, whether or noticitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449/A and B (modified PTO/SB/08) INFORMATION DISCLOSURE STATEMENT BY APPLICANT			APPLICATION NO.: 10/789	,536	ATTY. DOCKET NO.: C1039.70083US05	
			FILING DATE: February 26, 2004		CONFIRMATION NO.: 9640	
			APPLICANT: Krieg	et al.		
		GROUP ART UNIT: 1645		EXAMINER: Nita M. Minnifield		
Sheet	7	of	7			

NMM	YI et al., IFN-gamma promotes IL-6 and IgM secretion in response to CpG motifs in bacterial DNA and oligodeoxynucleotides. J Immunol. 1996 Jan 15;156(2):558-64.	
NMM	YI et al., CpG DNA rescue of murine B lymphoma cells from anti-IgM-induced growth arrest and programmed cell death is associated with increased expression of c-myc and bcl-xL. J Immunol. 1996 Dec 1;157(11):4918-25.	

^{*}a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. ___, filed ___, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR §1.98 and 1287OG163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR §1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR §1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. §120.]

ĺ	EXAMINER:	DATE CONSIDERED:
	/N. M. Minnifield/ (11/28/2006)	11/28/2006

^{*}EXAMINER: Initial if reference considered, whether or notcitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.